

## II . REMARKS

It is respectfully submitted that Ziemer is not pertinent to the patentability of the present invention. The transmission characteristic that is modified therein is the selection of spreading codes used for transmission. The selection as such does not carry any meaningful information from the transmitter to the receiver. The aim of Ziemer is to allow simultaneously using a number of spreading codes if an increased data rate is needed. Which spreading codes will be selected depends in an arbitrary manner on the contents of the digital data to be transmitted: there is a selection table for spreading codes, and simply the two first bits in the digital data to be transmitted are used as a key to said selection table.

However, according to the present invention, the selection of a modulation method carries meaningful information from the transmitter to the receiver, said meaningful information being more than just the trivial information about that modulation method having been selected. There is certainly prior art in which some transmission characteristic is selected according to a predetermined criteria at the transmitter, which criteria could be then called a "piece of information". However, all such prior art fail to disclose the fact that the receiver will receive some meaningful information as per the selection of a particular transmission characteristic.

The present application discloses a transmitting device and a receiving device. The former is transmitting information to the latter. "Information to be transmitted" is some information that exists in the transmitting device and that should be brought to the notice of also the receiving device. A typical piece of

information to be transmitted is the knowledge about what capabilities the transmitting device has: for example, if the transmitting device is a base station in a cellular radio system, the receiving device (e.g. a portable terminal) needs such knowledge in order to, e.g., evaluate, which cell it should select for which kind of operation: basic GPRS, EGPRS, EGPRS with 8PSK and so on (see page 12, lines 22-26, of the present application).

The mere fact that information is "to be transmitted" already indicates that "meaningful" information is concerned. In other words, the receiving device is expected to use said information for something. Of course there exists a lot of information in a transmitting device, some of which even affects the ways of processing of signals. However, it is typical of the prior art that such information only has some meaning to the transmitting device itself.

According to typical prior art, if a transmitting device selects signal processing method X among a number of possible signal processing methods X, Y and Z, this selection only acts as an announcement to the receiving device: "I have selected signal processing method X". It remains then the responsibility of the receiving device to adapt its signal counterprocessing methods so that it can successfully receive, demodulate and decode the signal, the information content of which comes in the form of a symbol sequence.

Contrary to this conventional way of thinking, in the present invention the fact that the transmitting device has selected signal processing method X might, e.g., convey the following message: "At this time of the day I am a basic GPRS base station

without EGPRS capacity available". In addition to this the transmission naturally has its conventional information content in the form of a symbol sequence. However, because one piece of information (the present appearance of the transmitting device as a basic GPRS base station) already was transmitted in the form of a selection of a baseband signal processing method, the totality of all symbols in the symbol sequence may be used to transmit some other information, such as channel frequencies and the like. Not a single symbol from the symbol sequence needs to be reserved for indicating any GPRS / EGPRS / EGPRS+8PSK capability.

In Ziemer the selection of spreading codes will be made on the basis of *information to be transmitted*, which definition we have used in the claims for meaningful information. Ziemer just does not use that information so that a receiver would deduce the values of the two first bits simply from the selection of spreading codes; Ziemer requires said two first bits to be transmitted exactly like any other bits of digital information to be transmitted.

In addition, "baseband" is recited in the pending claims. Ziemer speaks about selecting a spreading code, which is not a baseband signal processing method, but one affecting the signal on radio frequency. See column 2, lines 4-14: "This is accomplished by modulating the [radio frequency] signal to be transmitted with the information to be sent **and** with a wideband encoding signal (commonly known as a spreading code). Thus, a spread spectrum system must have two properties: In (1) the transmitted bandwidth should be much greater than the bandwidth or rate of the information being sent and (2) **some function other than the information being sent** is employed to determine the resulting modulated channel bandwidth." (emphasis added)

Thus, firstly, Ziemer does not select any **baseband** signal processing methods on the basis of any information to be transmitted, as presently claimed because Ziemer only speaks about selecting RF signal processing methods. Secondly, Ziemer's selection of a spreading code does not as such carry any meaningful information, whereas in the present claimed invention the selection of a baseband signal processing method acts as an independent vehicle of carrying meaningful information to the receiver.

Since Ziemer does not disclose the above limitations, the rejection of claims 1-4 under 35 USC 102 on Ziemer should be withdrawn.

Further, since these limitations are not suggested by Ziemer, claims 1-4 are unobvious over it.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.



Respectfully submitted,

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